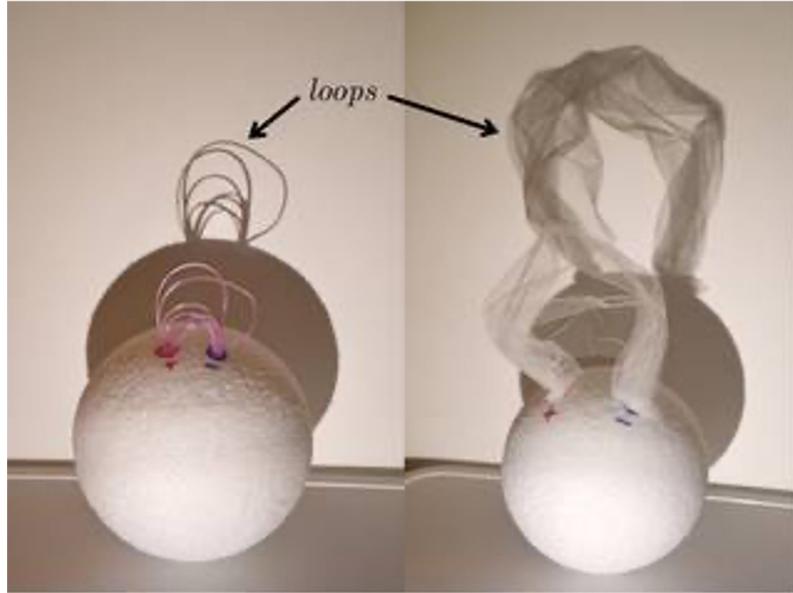


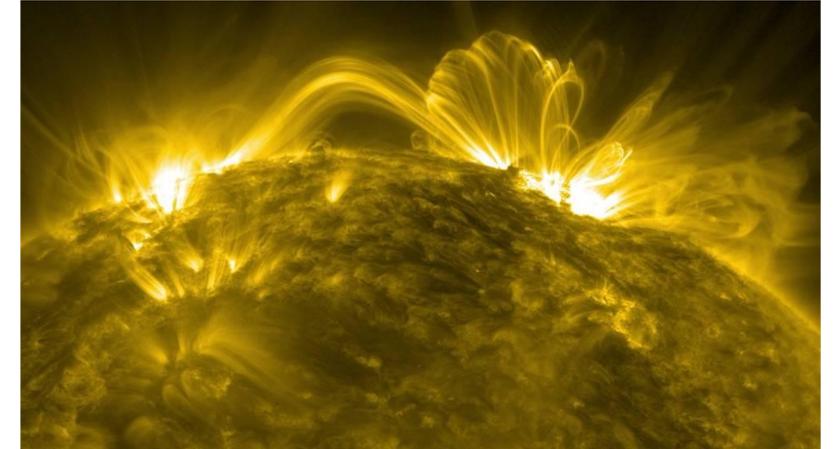
The Coronal Veil: Are the Sun's Magnetic Arches an Optical Illusion?



This model compares the “garden hose” model of coronal loops (left) to the coronal veil model (right). The ball represents the Sun, and the shadow represents the image of the Sun that would be observed by telescopes. (left) Individual strands or tubes connect one part of the Sun’s surface to another. The shadow reveals obvious loop-like structures. (right) A more complicated “veil” or translucent sheet connects one part of the Sun’s surface to another. The shadow still creates the impression of loop-like strands that in some places resemble those created by the garden hose model.

Credits: Anna Malanushenko

In extreme ultraviolet light, the Sun resembles a rumpled ball of yarn. Coronal loops on the Sun are captured by NASA’s Solar Dynamics Observatory.



- The Sun teems with giant radiant arcs known as coronal loops soaring through the Sun’s corona, or outer atmosphere. They are fundamental to the Sun’s workings. They are the source of most space weather.
- Current models treat these loops like “garden hoses” to explain them.
- A new model that treats them like translucent sheets or “veils” better explains what we see in 2D from telescopes while matching the physics.